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ABSTRACT OF THE DISCLOSURE

A method of modeling of the visible world using full-surround image data includes steps for selecting a view point within a p-surface, and texture mapping full-surround image data onto the p-surface such that the resultant texture map is substantially equivalent to projecting full-surround image data onto the p-surface from the view point to thereby generate a texture mapped p-surface. According to one aspect of the invention, the method also includes a step for either rotating the texture mapped p-surface or changing the direction of view to thereby expose a new portion of the texture mapped p-surface. According to another aspect of the invention, a first the texture mapped p-sphere is replaced by a second texture mapped p-sphere by interactively selecting the new viewpoint from viewpoints within the second texture mapped p-sphere. A corresponding apparatus is also described.